

FIG. 1

43269944 43269945 43269946

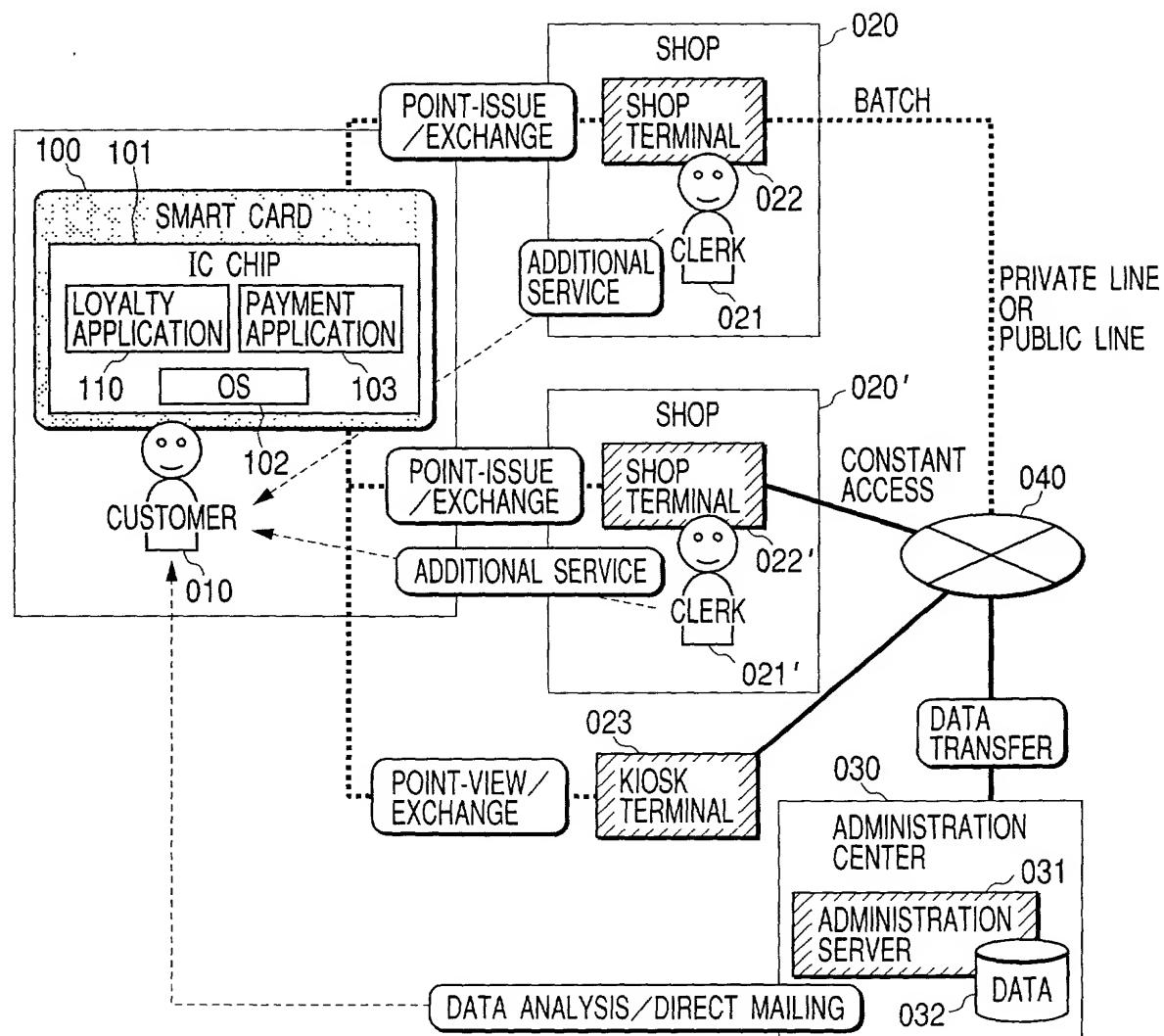


FIG. 2

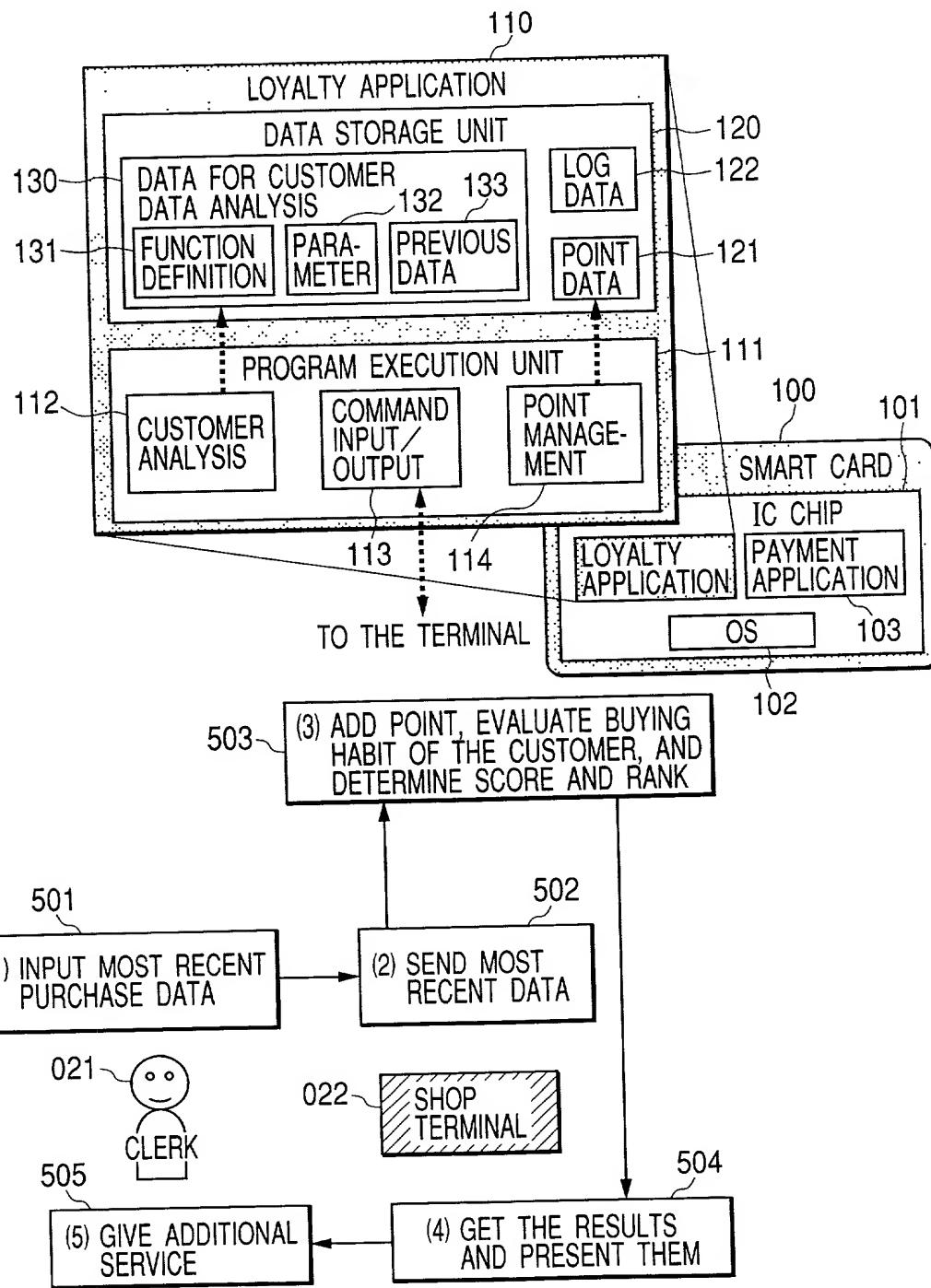


FIG. 3

MATHEMATICAL FORMULA 1

$$S_n = P_n + e^{-k(t_n - t_{n-1})} S_{n-1}, \quad S_0 = 0$$

S_n = SCORE VALUE AT n -th TIME,

P_n = PURCHASE DATA AT n -th TIME
(AMOUNT, NUMBER OF USAGE etc.),

t_n : DATE/TIME AT n -th TIME,

k : CONSTANT

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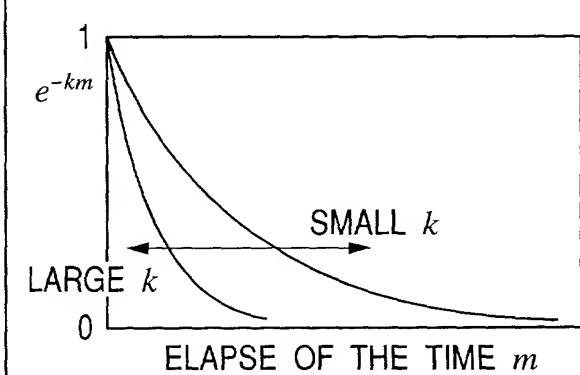
MATHEMATICAL FORMULA 1'

$$S_n = P_n + e^{-k(t_n - t_{n-1})} P_{n-1} + \dots + e^{-k(t_n - t_2)} P_2 + e^{-k(t_n - t_1)} P_1 = \sum_{j=1}^n e^{-k(t_n - t_j)} P_j$$

COEFFICIENT
WHICH ABSORBS
THE EFFECT OF
PAST PURCHASE

$$e^{-km}$$

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MATHEMATICAL FORMULA 2 (AVERAGE)

$$S_n = \frac{P_n + S_{n-1} \cdot (N-1)}{N}$$

S_n = AVERAGE VALUE AT n -th TIME,

P_n = PURCHASE AMOUNT AT n -th TIME,

N : ACCUMULATED TOTAL NUMBER OF
USAGE AT n -th TIME

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FIG. 4

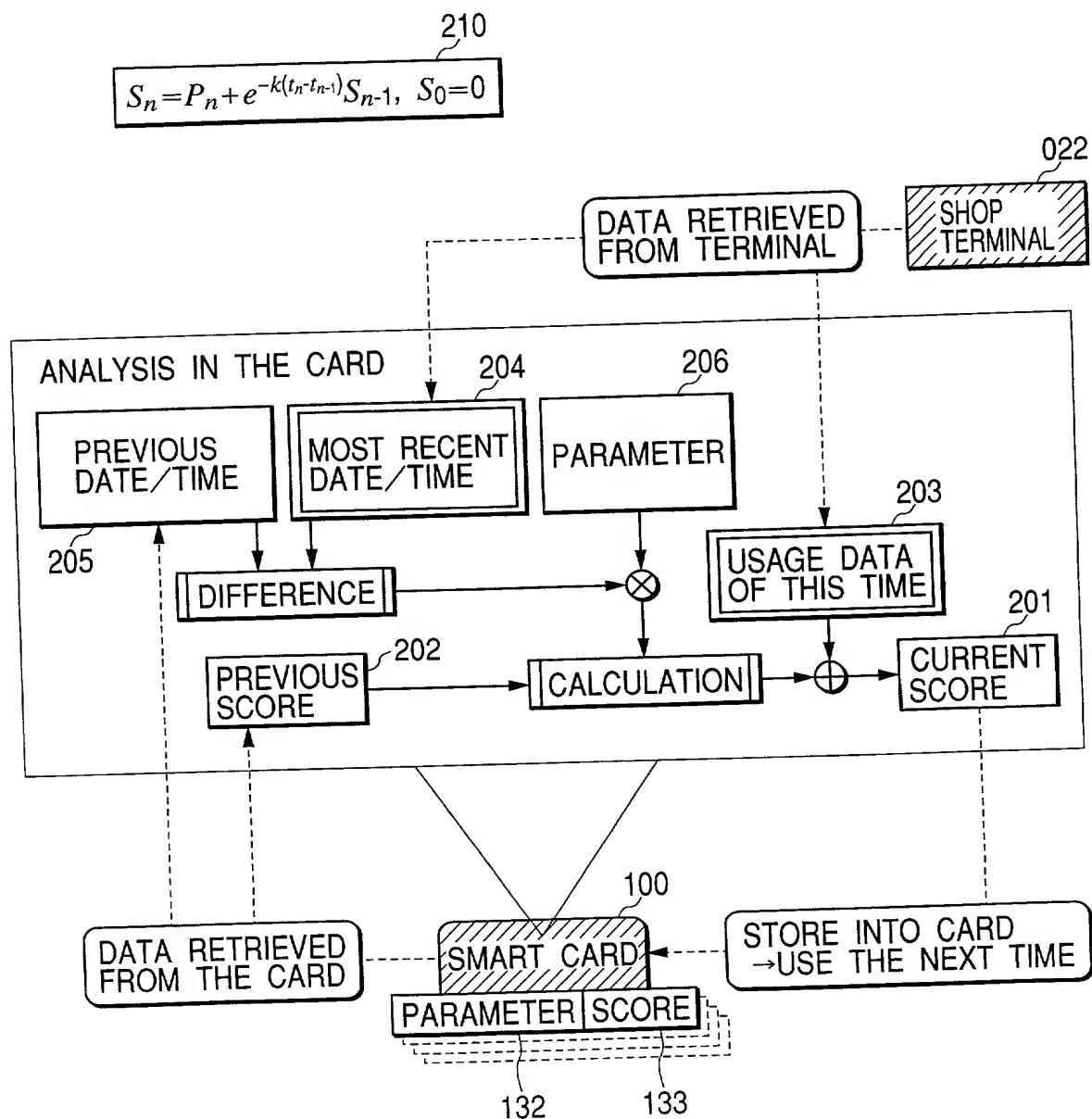


FIG. 5

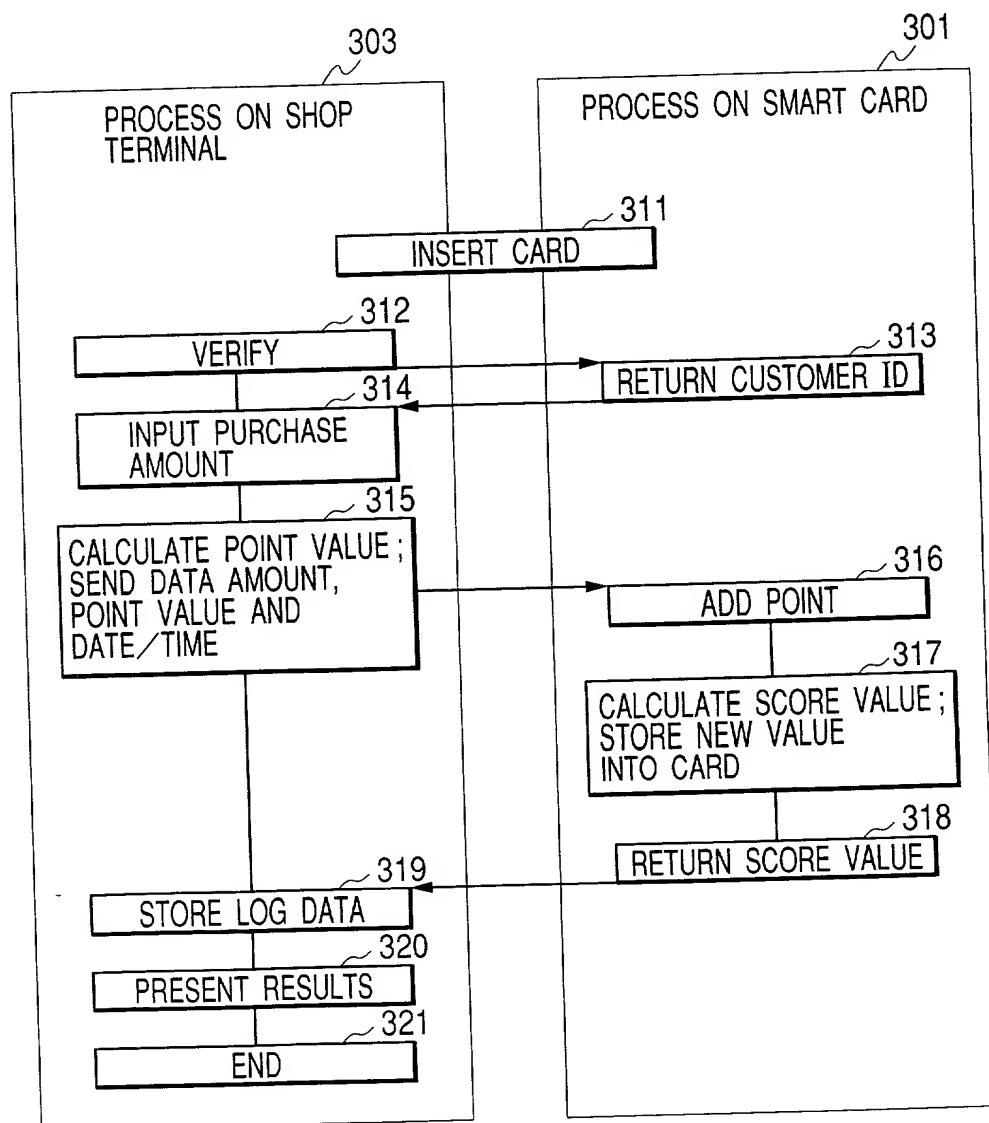


FIG. 6

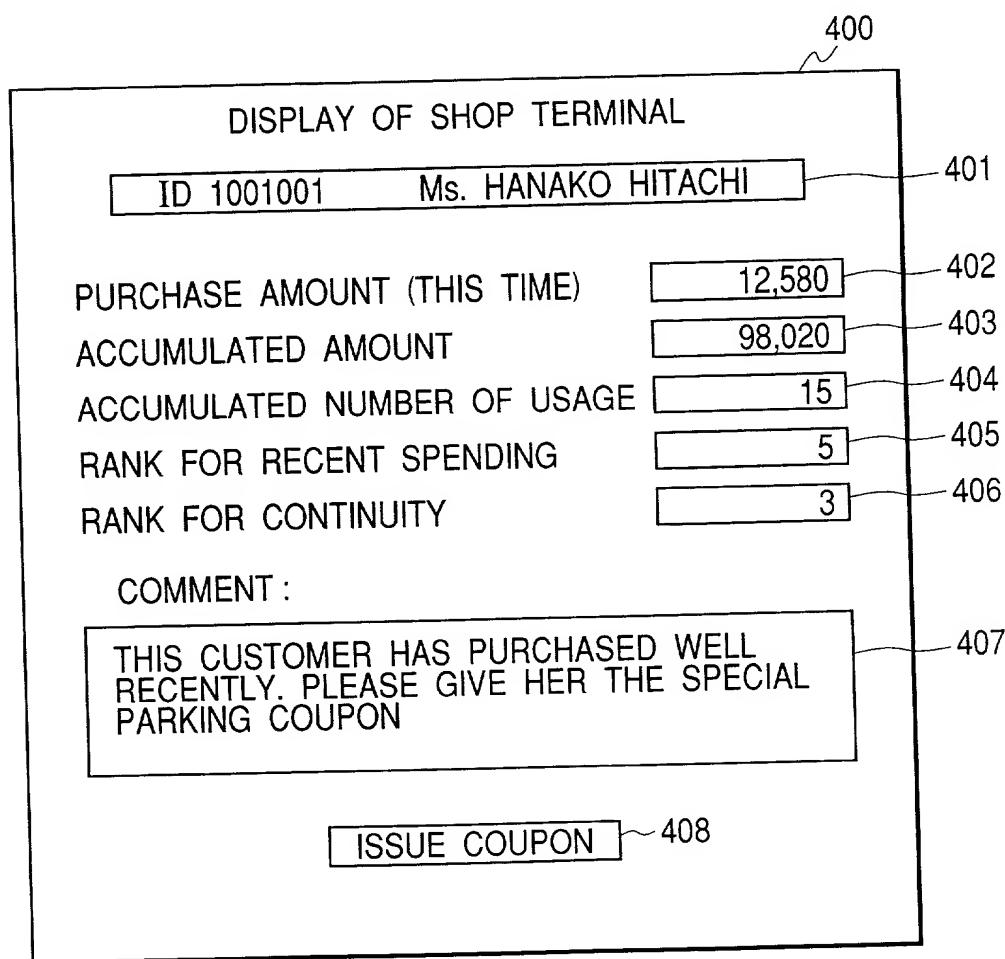
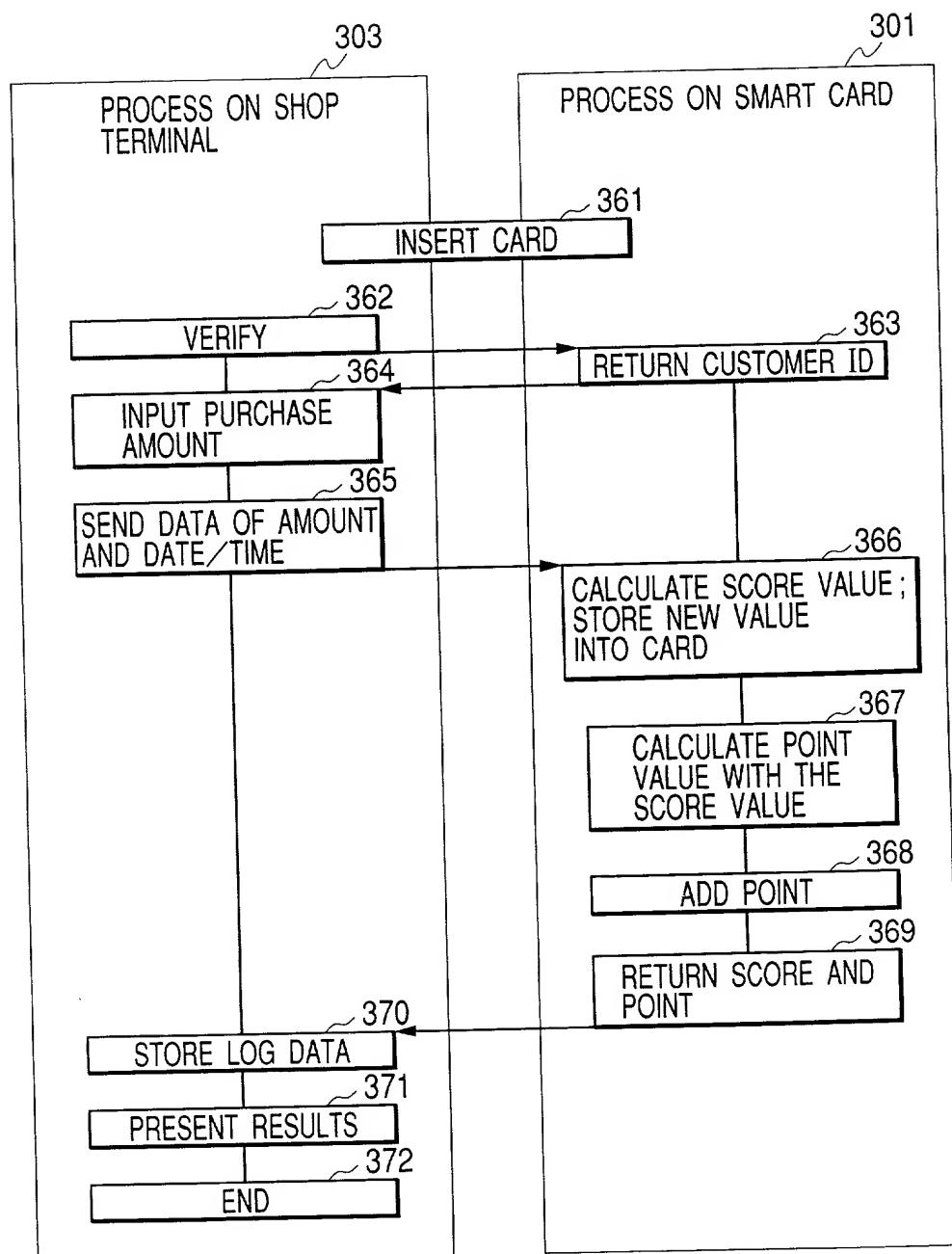


FIG. 7



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FIG. 8

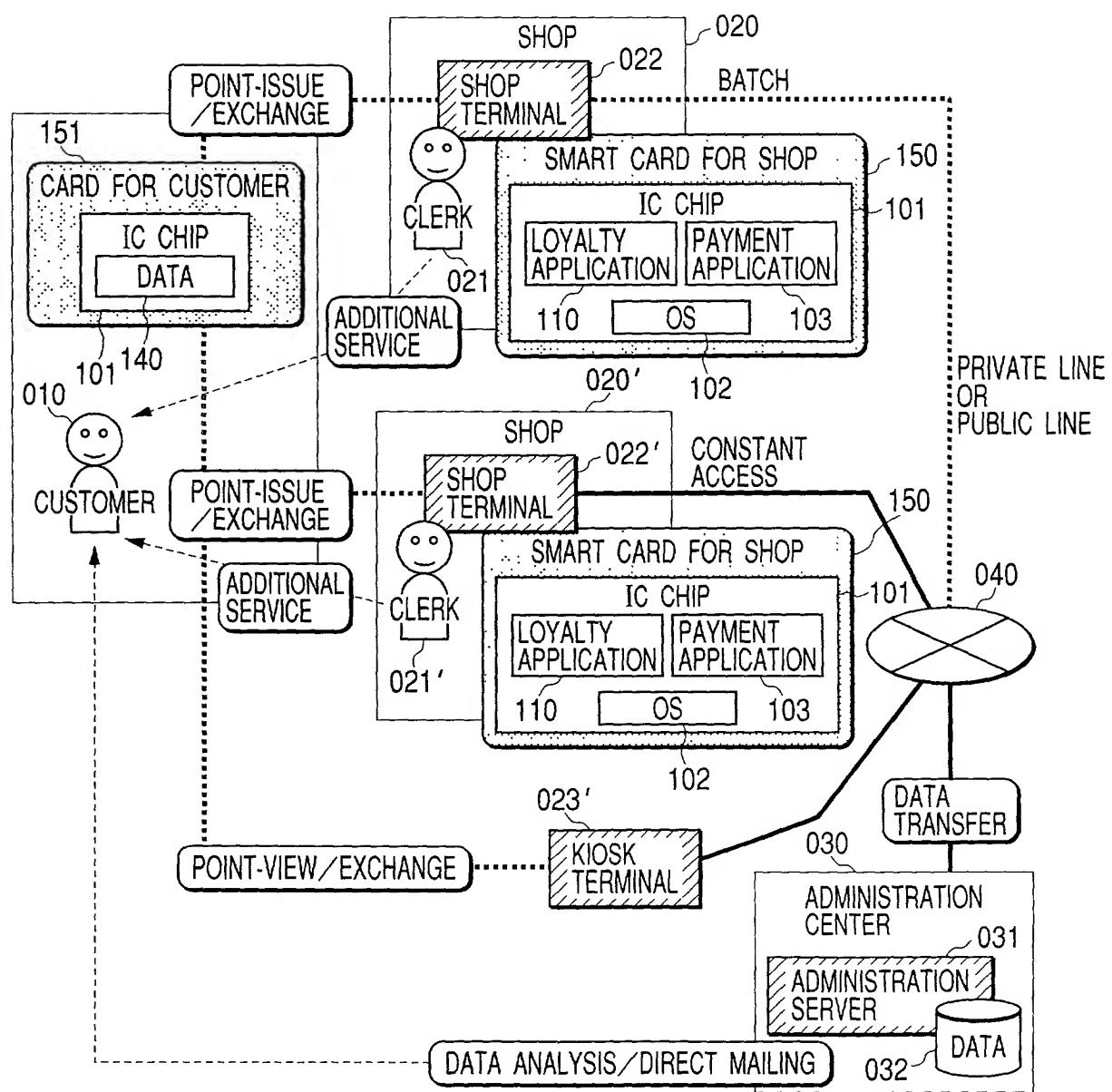


FIG. 9

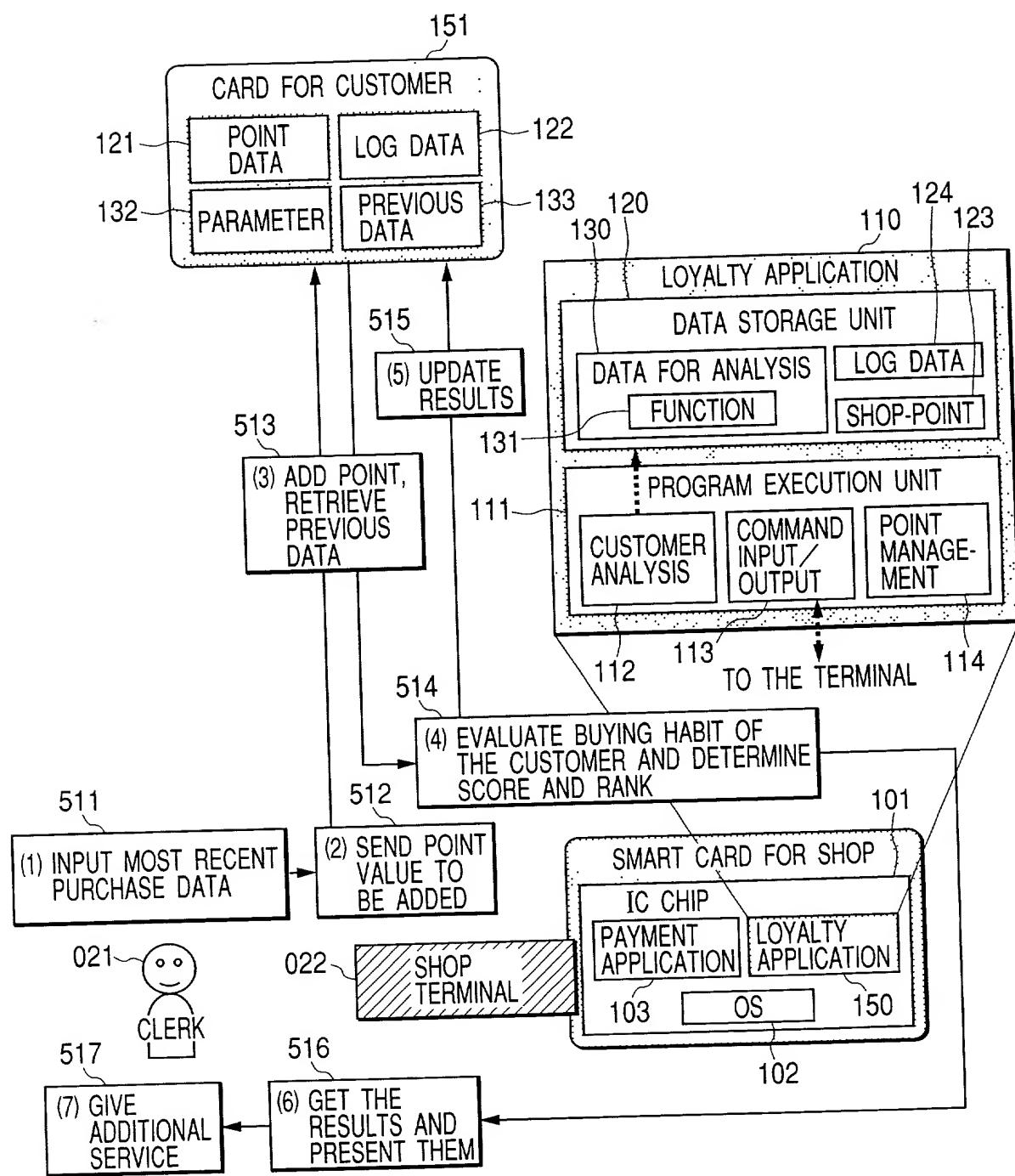


FIG. 10

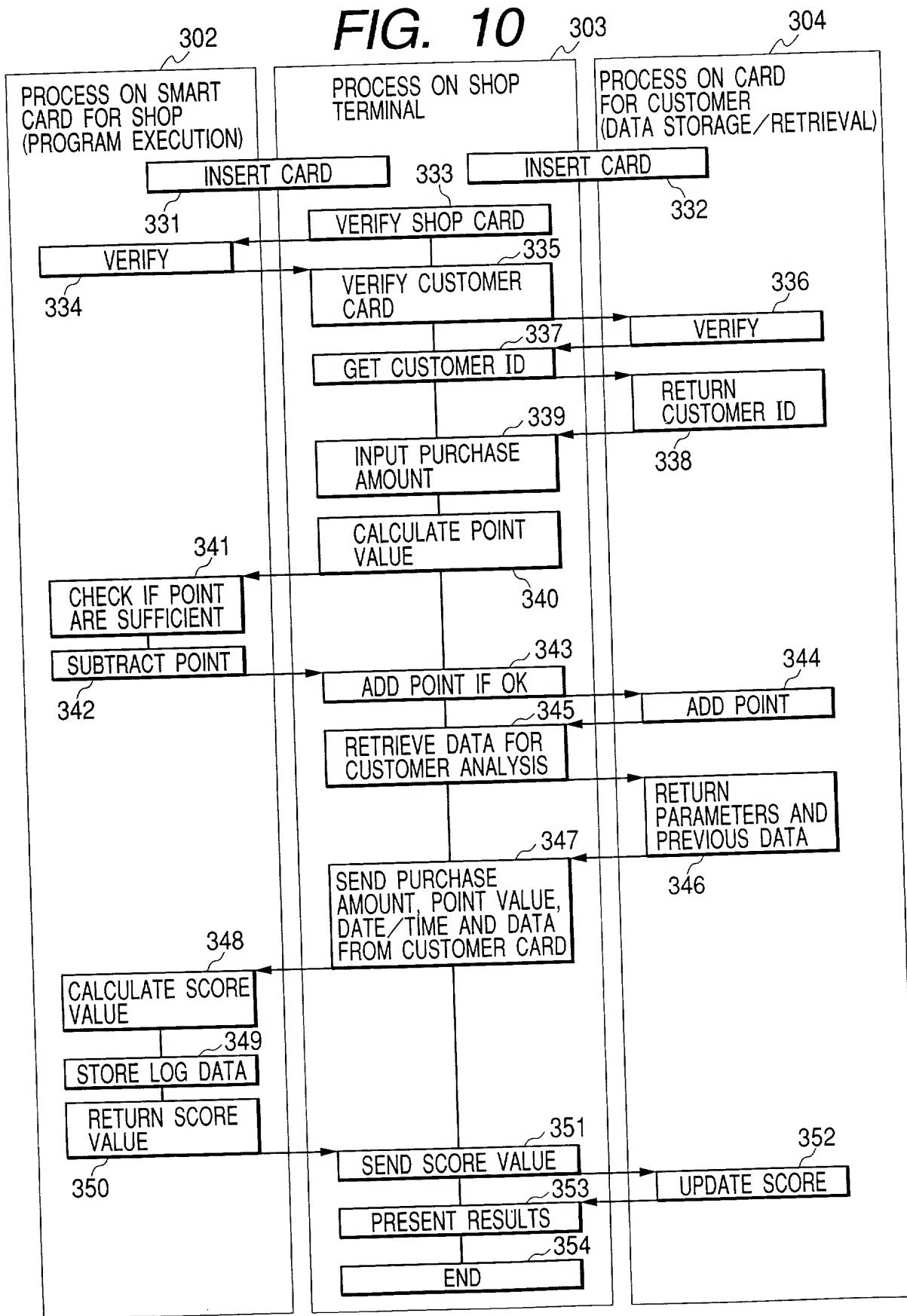


FIG. 11

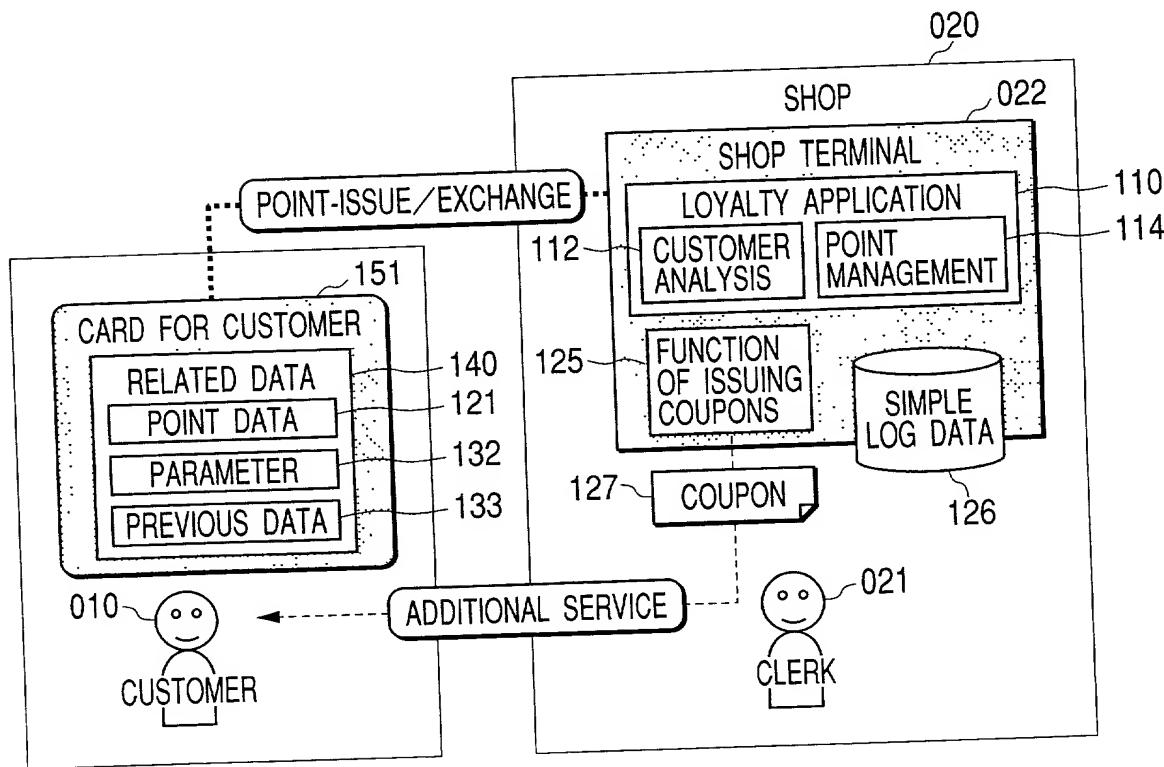


FIG. 12

